UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105

Via Electronic Mail

January 22, 2014

Mr. Fred J. Smalling
Americas Styrenics
605 Crenshaw Blvd
Torrance, California 90503

Re: Polychlorinated Biphenyls Cleanup under Toxic Substance Control Act *Self-Implementation Cleanup Plan – Train 4, Americas Styrenics 305 Crenshaw Boulevard, Torrance California 90503.*

Dear Mr. Smalling

Thank you for working with the U.S. Environmental Protection Agency, Region 9 (USEPA) to address the cleanup of PCBs found on Americas Styrenics Train 4 (Site), located at 305 Crenshaw Blvd Torrance, California 90503. The USEPA received and reviewed Americas Styrenics November 2013 *Self-Implementation Cleanup Plan – Train 4* (SICP) prepared by Environmental Resource Management (ERM) which outlines Americas Styrenics Train 4 PCB remediation plan.

Americas Styrenics submitted the SICP under 40 CFR 761.61(a); however, based on the desired remediation methods and clean up levels discussed between the USEPA and Americas Styrenics a risk-based approval was decided to be the desired approach. The USEPA is hereby approving Americas Styrenics SICP as modified by the conditions in this approval under 40 CFR 761.61(c) for a risk-based cleanup. Enclosure 1 contains the conditions of approval and Americas Styrenics must implement the SICP as modified by these conditions.

Americas Styrenics SICP is modified by the USEPA conditions of approval and some of those conditions include:

- PCB cleanup levels for non-porous materials (metal jackets and vessel components) and Painted metal surfaces will be $< 1\mu g/100cm^2$ based on surface wipe samples.

- Americas Styrenics will continue to use Train 4 to generate polystyrene pellets. PCBs will be remaining in place in the concrete super structure. Train 4 will be classified as a *Low Occupancy Area* as defined in 40 CFR 761.3. PCB cleanup levels for porous surfaces, namely the concrete surface of Train 4s super structure is < 50 ppm total PCBs. The surface of the concrete will be cleaned and a two part epoxy coating along with a physical barrier (i.e. interlocking tiles) will be put into place as a "cap" to protect human health and the environment.

- The primer, paint, fireproofing material and the median used to remove said materials must be considered *PCB Bulk Product Waste* as defined in 40 CFR 761.3, and shall be disposed of in accordance with 40 CFR 761.62

- A restrictive Land use Covenant (LUC) must be recorded in accordance with California state law due to PCBs remaining in the concrete super structure. Provisions of the LUC are in Enclosure (1) section C. USEPA conditions of approval and additional comments.

This conditional approval does not relieve the owner, Americas Styrenics from complying with all other applicable federal, state, and local regulations and permits. Departure from the approval conditions without prior written permission from USEPA may result in the commencement of proceedings to revoke this approval, and/or an enforcement action. Nothing in this approval bars USEPA from imposing penalties for violations of this approval or for violations of other applicable TSCA PCB requirements or for activities not covered under this approval.

This approval only applies to the Americas Styrenics Train 4 and Train 5 located on the facilities grounds at 305 Crenshaw Boulevard Torrance, California. USEPA reserves the right to require additional characterization and/or cleanup of PCBs at the site if new information during additional site characterization, cleanup verification, and/or during future post-cleanup activities (e.g., redevelopment and post redevelopment) at the property shows that PCBs remain at the site above the approved PCB cleanup level. In addition, USEPA may require cleanup in areas immediately adjacent to the site if those areas are found to be impacted by PCBs.

USEPA appreciates the opportunity to assist Americas Styrenics on the PCB cleanup being approved here under 40 CFR 761.61(c). If you have any questions regarding this approval please contact George Randell at 415.972.3439. Thank you for your cooperation.

Sincerely,

Jeff Scott, Director
Waste Management Division

Enclosure (1)

Cc Via Electronic Mail Only

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January 22, 2014

EPA Conditional Approval for Risk-Based PCB Cleanup under the Toxic Substances Control Act, 40 C.F.R. §§ 761.61(c) at the Americas Styrenics Facility in Torrance, California

A. Introduction

The U.S. Environmental Protection Agency Region 9 (USEPA) has reviewed and is approving with conditions the "*Self-Implementation Cleanup Plan – Train 4*" (SICP) prepared by Environmental Resources Management (ERM) for Americas Styrenics. The SICP includes existing site characterization data, describes past and planned site usage, and proposes remedial actions cleanup confirmation sampling and reporting at the Americas Styrenics facility located at 305 Crenshaw Boulevard, Torrance, California 90503 (Site).

The USEPA hereby approves with conditions additional characterization and cleanup actions proposed in the SICP. This approval is effective immediately, on the date of this enclosure. This approval is issued under the Toxic Substances Control Act (TSCA) regulations under 40 CFR 761.61(c) (risk-based disposal approval application). While USEPA considers the SICP to be the self-implementing cleanup plan and notification, some of the elements in the SICP require approval under 40 CFR 761.61(c). Section C of this document establishes the conditions of approval.

B. Site Background

1. Current land use

The Americas Styrenics facility is located in an industrial area of Torrance, California. The presence of PCB contamination has been found in two polystyrene process trains, Trains 4 and 5, which produce polystyrene pellets. As described in the SICP, each train is comprised of process lines, pumps, vessels and reactors mounted onto superstructures consisting of metal columns, I-beams, and metal floor grates. The trains also encompass a storm water collection system that includes sumps and drains. The superstructure does not have any walls or roof. Train 4 was constructed in 1966, and later components were added in 1973. Train 5 was constructed in 1972 and painted in 1973. Both trains include spray on insulation materials over vertical structural components.

2. Possible and/or known source of PCB

ERM believes the latex based primer covering the fall-protection hand railings were manufactured with PCBs and the PCBs present in the paint have up to 20,000 ppm. Paint and fireproofing materials were then used to cover the primer. According to Americas Styrenics, the PCBs subsequently leached into the paint and the fireproofing materials. The Paint/Primer and the fireproofing materials shall be considered PCB bulk product waste consistent with 40 CFR

761.3 and USEPA's October 2012 guidance/policy memorandum reinterpreting certain elements of the definition of PCB bulk product waste.

PCBs are present in the following areas at the Site:

- Lead-based paint found on various structure and safety controls, including but not limited to, I-beams, stair handrails, and fall protection railings.
- Various un-painted metal surfaces.
- Fire proofing materials.
- A tar-like substance believed to be residual product release.
- Debris found in the drains, trenches, and sumps of the super structures.
- On the surface of the concrete foundation, trenches, and sumps and at depths up to 3.5 inches from the surface of these structures.

2. Future Land Use

Americas Styrenics plans to continue producing High Impact Polystyrene (HIPS) and General Puprose Polystyrene (GPPS) pellets. Train 4 will continue to have restricted access consistent with a *Low Occupancy Area* as defined in40 CFR 761.3. A restrictive land use covenant (LUC) must be put into place by Americas Styrenics. The requirements for the LUC are found below, under Condition C.7 (Restrictive Covenant).

3. Summary of Work to Date

The following summarizes sampling activities completed to date by America Styrenics/ERM on Trains 4 and 5 at their plant.

Train 4:

- Wipe samples of un-painted surfaces
- Paint chip samples
- Bulk samples from debris and fireproofing material
- Concrete core samples

Train 5:

- Wipe samples of un-painted surfaces
- Paint chip samples
- Concrete core samples

C. USEPA's Conditions of Approval and Additional Comments

1. The USEPA is approving the (1) cleanup of non-porous surfaces (i.e. metal jackets on piping and vessel components), (2) cleanup of painted metal surfaces, including those covered by fireproofing materials and (3) surface cleanup, encapsulation and application of a physical barrier of the Train 4 concrete foundation, trench, and sumps under 40 CFR 761.61(c).

2. The paint, fireproofing material, and the materials used to remove the paint (e.g., sand from sand blasting), shall be considered **PCB bulk product waste** and disposal of such waste is addressed in Condition C.7. Removal of the paint and fireproofing material must be done in a manner that is protective of human health and the environment.

3. Cleanup Levels and Actions

Cleanup of PCBs at the site must be conducted consistent with the cleanup levels established below. Each cleanup verification sample must meet the cleanup level.

a. PCBs on non-porous surfaces including but not limited to metal jackets and vessel components must be cleaned in accordance with ERMs SICP with the exception of the final clean up level. The final cleanup level for non-porous surfaces shall be < 1 µg/100 cm^2 total PCBs based on EPA analysis of exposure and risk to human health and the environment, phone communications with ERM[1], and consistent with 40 CFR 761.61(c).

b. Porous surfaces, specifically the concrete surface of Train 4's foundation must be < 50 ppm total PCBs remaining in place and shall have a two part epoxy coating and physical barrier. The combined epoxy coating (encapsulate) and physical barrier are referred to hereafter in this approval as the cap. The USEPA has established this condition consistent with 40 CFR 761.61(c). The decontamination, encapsulation (application of a coating), and installation of a physical barrier above the coated concrete floor surface is addressed below in Condition C.5 of this Approval.

c. Painted metal surfaces, namely the hand rails, fall protection rails, and surfaces covered with fireproofing materials must be cleaned up and inspected in accordance with ERMs SICP with the exception of the final cleanup level. The final cleanup level for the painted surfaces shall be < 1 µg/100cm^2 total PCBs based on EPA analysis of exposure and risk to human health and the environment and consistent with 40 CFR 761.61(c).

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[1] "Based on phone communications with ERM on January 8, 2014 ensuring the USEPA their cleanup goals for the painted metal surfaces and the non-porous surfaces is < 1 µg/100cm^2 total PCBs based on surface wipe samples.

4. **Initial surface decontamination and capping of Train 4's concrete floor.** USEPA is approving under 40 CFR 761.61(c), Americas Styrenics/ERM proposed initial decontamination of the concrete floor in Train 4. The proposed initial decontamination is not a cleanup of PCBs in the concrete but a surface cleanup to facilitate application of the epoxy coating. The procedure consists of a solvent wash and rinse to remove dust, dirt, grease, and grime. Surface PCBs may be removed from the concrete although PCBs may also penetrate deeper in the concrete due to the use of a solvent. The "cleaned" surface of the concrete floor in Train 4 will be coated with epoxy and the M_L mark consistent with 40 CFR 761.45(a) will be added to the floor. A **non-porous** physical barrier (e.g., interlocking tiles) will be installed above the epoxy-coated (encapsulated) concrete floor. This process involving application of the epoxy coating, M_L marking, and installation of a non porous physical barrier constitute **capping** of the concrete floor at Train 4. USEPA is approving this capping procedure under 40 CFR 761.61(c). This Condition modifies Sections 4.1.-4.5 of the SICP.

5. **Changes in land use for the cleanup site.** Train 4 is classified as a *low occupancy area.* **Prior** to any change in land use including a change from a *low occupancy* to a *high occupancy* area, the USEPA must be notified in writing no later than **30** days after having knowledge of the intent for such a change. In addition, all the requirements in 40 CFR 761.61(a)(4)(v) must be met. In case of a change from low to high occupancy area, USEPA reserves its rights to require more stringent cleanup levels consistent with 40 CFR 761.61(c), or if applicable, 40 CFR 761.61(a)(4)(vi).

6. **Restrictive Land Use Covenant.** The USEPA is approving the continued use of Train 4 as a *Low Occupancy Area* as such area is defined in 40 CFR 761.3. Americas Styrenics plans on continuing to use and operate Train 4. Therefore, the USEPA is requiring that a restrictive land use covenant (LUC) be recorded in accordance with California state law. The LUC must be submitted to USEPA for review and approval within 60 days after USEPA's approval of Cleanup Completion Report required in Condition C.17 below. At a minimum, the LUC must contain the following:

    a. America Styrenic *Self-Implementation Cleanup Plan Train 4* prepared by ERM November 2013.
    b. The USEPA conditional approval dated January 22, 2014 and any amendment(s) to that approval.
    c. The information required in 40 CFR 761.61(a)(8)(i)(1),(2), and (3)
    d. Figures depicting location and concentrations of **all** PCBs remaining at the site.
    e. The type and detailed description of the cap or caps used for continued operation of Train 4 and any other areas at the site .
    f. A copy of Americas Styrenics/ERM Operations and Maintenance Plan for the cap and post-cleanup activities as specified in ERMs SICP Section 4.5 as modified by USEPA's January 22, 2014 Approval.
    g. A copy of the notification to all employees on-site about residual PCBs remaining in Train 4 including but not limited to, the concrete foundation of train 4 (at depth and at

the surface), hand and fall protection railings, and metal jackets and vessel components.

7. **Disposal of PCBs.** Americas Styrenics shall dispose of all waste that it generates during the PCB cleanup in accordance with the TSCA PCB and other applicable federal, state, and local regulations. In determining the disposal method for the waste, Americas Styrenics/ERM must comply with TSCA's anti-dilution requirements in 40 CFR 761.1(b)

   a. All bulk PCB remediation waste (i.e. debris and tar like material found on Train 4s concrete foundation, trench and sumps) must be disposed of in accordance with the requirements in 40 CFR 761.61(a)(5). Americas Styrenics must select the appropriate disposal facilities based on the in-situ PCB concentrations in the waste.

   b. All PCB bulk product waste (i.e paint/primer and fireproofing materials) shall be disposed of in accordance with the requirements in 40 CFR 761.62. Americas Styrenics must select the appropriate disposal facilities based on the in-situ PCB concentrations in the waste.

   c. All materials and equipment used in the cleaning of the surface of Train 4s concrete foundation consistent with 40 CFR 761 subpart S must be disposed of, decontaminated or reused in accordance with 40 CFR 761.378.

   d. Debris and/or sediment contaminated with PCBs below 50 ppm and containing other contaminate (e.g. lead) must be disposed of based on the most stringent disposal requirements for the waste.

   e. PCB cleanup waste (e.g. personal protective equipment, rags, gloves booties) shall be disposed of in accordance with 40 CFR 761.61(a)(5)(v).

8. **Equipment Decontamination.** America Styrenics/ERM must decontaminate non-disposable sampling tools and equipment, as well as movable equipment used during the clean up and/or additional characterization in accordance with 40 CFR 761.79(c)(2). Decontamination of sampling equipments and tools must be conducted each time samples are collected to prevent cross-contamination. Decontamination residues must be disposed of at their original concentration in accordance with the requirements in 40 CFR 761.79(g). Recordkeeping of the decontamination events must be maintained in accordance with the requirements in 40 CFR 761.79(f)(2). These procedures must be implemented in a manner that is protective of human health and the environment consistent with the requirements in 40 CFR 761.79(e).

9. **Additional sampling.** According to Americas Styrenics/ERM the Train 4 super structure is washed down as a regular maintenance. We believe the wash-down water may carry particulates of PCB containing paint and/or fire proofing material to the outlying areas of Train 4 and Train 5. Therefore, within **30** days of the date of this approval, America Styrenics/ERM must submit a sampling and analysis plan to further characterize the areas

surrounding Train 4 and Train 5 that might be impacted by PCBs during the wash down of Trains 4 and 5.

10. **Additional Characterization for PCBs on Train 5.** Based on ERMs Building Materials Characterization Report Train 5 contains PCBs as high as 45 ppm. ERMs report acknowledges further characterization of Train 5 is needed to determine the extent of contamination and if remediation is needed. Based on the report and data provided Americas Styrenics/ERM must characterize and, if necessary, develop a cleanup plan for Train 5 within **90** days of the date of this approval.

11. **Storm water management.** Americas Styrenics/ERM must submit information about the storm water drainage system within **15** days of the date of this approval. Such information must also explain how and where the storm water collection is pumped from the train 4 sump and describe any testing requirements prior to conveyance of the water to a publically owned treatment works (POTW). In addition, the requested information shall explain if sediments accumulate in the sump, if the sediment is tested for total PCBs, and the final disposition of the sediments.

12. **Tanker Truck.** ERM's Buildings Materials Characterization Report prepared for Americas Styrenics in May 2013 addresses a Tanker Truck containing fluid removed from Train 4's sump. ERM describes the fluid in the tanker truck as having a "semi-solid floating emulsion material". The water in the tanker truck was analyzed and subsequently contained 330 ppm PCBs. Within **15** days of this approval, America Styrenics/ERM shall submit **all** information regarding the contaminated tanker truck, including but not limited to:

    a. Procedures used to sample the PCBs inside the tanker truck.
    b. Results and laboratory analysis of samples taken from the tanker truck.
    c. Procedures used to decontaminate the tanker truck.
    d. Results of all samples taken after decontamination of the tanker truck to demonstrate an applicable decontamination standard was met consistent with 40 CFR 761.79.

13. **Previous Site Characterization Results from URS.** Americas Styrenics/ERM references site characterization samples taken by URS. ERM used that information as a basis for site characterization of PCBs in Trains 4 and 5. Within **15** days of the date of this approval, Americas Styrenics/ERM shall submit all of URS's site characterization reports (including those addressing PCBs) to the USEPA associated with Train 4 and/or 5. If necessary, the USEPA may amend this approval based on the information provided by America Styrencis/ERM.

14. **Verify if PCB Byproducts are generated.** Within **30** days of the date of this approval, Americas Styrenics/ERM shall submit **documentation to the USEPA** confirming Americas Styrenics' assertion that its plastic pellet manufacturing process does not involve the use of PCB containing raw materials and/or results in the inadvertent generation of PCBs.

15. **Certification.** The certification provided in Attachment A of the Response to the *U.S. Environmental Protection Agency Questions Self Implementing Cleanup Plan America Styrenics Torrance, California* is not signed. **Within 30 days after the date of this approval** submit the signed certification to USEPA. The certificate must be signed by **both** the owner of the property and the cleanup party.

16. **Sampling data presentation.** In the final cleanup completion report, America Styrenics/ERM must include figures depicting the location and results for all site characterization and cleanup verification samples. In addition, survey or GPS coordinates for cleanup verification samples must be recorded and presented in the data summaries to be included in the report.

17. **PCB Clean Up Completion Report.** Within 60 days after Americas Styrenics completes cleanup verification sampling at the site, Americas Styrenics must submit a PCB cleanup report for the USEPA approval under 40 CFR 761.61(c) that includes all relevant data and justifications demonstrating that Americas Styrenics achieved the USEPA approved Cleanup levels at Train 4. Americas Styrenics/ERM must provide the USEPA a report of all remaining PCB concentrations left at the site in conjunction with section C.4 and address all reporting requirements in 40 CFR 761.61(a)(9) and 40 CFR 761.125(c)(5).

This conditional approval does not relieve the owner, Americas Styrenics from complying with all other applicable federal, state, and local regulations and permits. Departure from the approval conditions without prior written permission from USEPA may result in the commencement of proceedings to revoke this approval, and/or an enforcement action. Nothing in this approval bars USEPA from imposing penalties for violations of this approval or for violations of other applicable TSCA PCB requirements or for activities not covered under this approval.

This approval only applies to the Americas Styrenics Train 4 and Train 5 located on the facilities grounds at 305 Crenshaw Boulevard Torrance, California. USEPA reserves the right to require additional characterization and/or cleanup of PCBs at the site if new information during additional site characterization, cleanup verification, and/or during future post-cleanup activities (e.g., redevelopment and post redevelopment) at the property shows that PCBs remain at the site above the approved PCB cleanup level. In addition, USEPA may require cleanup in areas immediately adjacent to the site if those areas are found to be impacted by PCBs.